(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 10 February 2005 (10.02.2005)

(10) International Publication Number WO 2005/012540 A1

(51) International Patent Classification7: C08B 11/20

C12P 19/04,

(21) International Application Number:

PCT/EP2004/051491

(22) International Filing Date:

14 July 2004 (14.07.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: VA2003A000025

17 July 2003 (17.07.2003)

- (71) Applicant (for all designated States except US): LAM-BERTI SPA [IT/IT]; Via Piave 18, I-21041 Albizzate (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): Giuseppe [IT/IT]; Via Osoppo, 1, I-21100 Varese (IT). FORMANTICI, Cristina [IT/IT]; Viale Reina, 10, I-21040 Ierago con Orago (IT). DEMARCHI, Cristina [IT/IT]; Via Castelnovate 19b, I-28047 Oleggio (IT). MARZETTA, Roberto [IT/IT]; Via Confalonieri, 15, I-21040 Castronno (IT). GALANTE, Yves [IT/IT]; Piazza dello Sport, 1/4, I-20020 Arese (IT). LI BASSI, Giuseppe [IT/IT]; Via Stretti, 4, I-21026 Gavirate (IT).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,

TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG. ES. Fl. GB. GD. GE. GH. GM. HR. HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

ENZYMATIC DEPOLYMERISATION OF CARBOXYMETHYLCELLULOSE IN HYDROALCOHOLIC (54) Title: **SOLUTIONS**

(57) Abstract: The present invention refers to the procedure for the preparation of aqueous concentrated solutions of low viscosity carboxymethy lcellulose by enzymatic depolymerisation of medium viscosity carboxymethy lcellulose in the form of dispersed powder in a hydro-alcoholic heterogeneous medium, and to such aqueous concentrated solutions which have Brookfield viscosity, at 20 °C and 20 rpm, comprised between 2000 and 5000 mPa*s. Preferred alcohol-water biphasic systems have from 40% to 50% of alcohol (e.g., ethanol or isopropanol). The aqueous solutions of carboxymethylcellulose produced are stable over time, and their viscosity varies no more than 10% in 3 months.